Plan Overview

A Data Management Plan created using DMPonline

Title: The impact of immersive technology on ASMR

Creator: Agnieszka Janik McErlean

Contributor: Thomas Swart, Claudia Nader, Giulia Poerio

Affiliation: Bath Spa University

Template: BSU Data Management Plan

Project abstract:

Autonomous Sensory Meridian Response (ASMR) is a multi-sensory phenomenon described as a pleasurable static-like sensation triggered by audio-visual stimuli (e.g. crisp sounds or whisper) which typically originates at the back of the head and spreads throughout the whole body resulting in a highly relaxed state, reduced heart rate and boosted positive affect (Janik McErlean & Banissy, 2017; Poerio, Blakey, Hostler, and Veltri, 2018). Although ASMR can be experienced in daily life in recent years many ASMR-inducing YouTube channels have been drawing millions of people who watch such videos to experience the sensation, relax, and fall asleep (Janik McErlean & Banissy, 2017). The mechanisms underpinning ASMR are not yet fully understood. One possibility is that absorption, which reflects a propensity to become immersed with the current experience and which has been found to be elevated in ASMR (Janik McErlean & Osborne-Ford, 2020) contributes to the enhanced ability to get immersed in ASMR-videos. In light of these findings, this project aims to establish whether immersive technology can enhance the ASMR experience and its wide ranging benefits. Specifically, this project will investigate how the conventional and binaural sound affect the intensity of ASMR, the ability to become immersed and the wider outcomes related to wellbeing. It will also be established which modality leads to the most pronounced ASMR experience and its associated benefits i.e. whether audio, video or audio-visual triggers are most effective.

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The impact of immersive technology on ASMR

Overview

Name of Principal Investigator(s)

Dr Agnieszka Janik McErlean

ORCID ID

https://orcid.org/0000-0002-8201-2827

Investigator(s) contact details

Question not answered.

Funding application title

Question not answered.

Funding body

Bristol + Bath Creative R+D

Total funding required

£7k - this project is already funded

Project description

Autonomous Sensory Meridian Response (ASMR) is a multi-sensory phenomenon described as a pleasurable static-like sensation triggered by audio-visual stimuli (such as e.g. crisp sounds or whisper) which typically originates at the back of the head and spreads throughout the whole body resulting in a highly relaxed state, reduced heart rate and boosted positive affect (Janik McErlean & Banissy, 2017; Poerio, Blakey, Hostler, and Veltri, 2018). Although ASMR can be experienced in daily life in recent years many ASMR-inducing YouTube channels have been created drawing millions of people who watch such videos to experience the sensation, relax, and fall asleep (Janik McErlean & Banissy, 2017). ASMR has also been associated with a distinct personality profile, increased tendency to get immersed with the current experience and several lines of evidence suggest potential increased sensory sensitivity in ASMR-experiencers (e.g. Janik McErlean & Banissy, 2018; Janik McErlean & Osborn-Ford, 2020).

In light of these findings, this project aims to establish whether immersive technology can enhance the ASMR experience and its wide ranging benefits. Specifically, this project will investigate how the conventional and binaural sound affect the intensity of ASMR, the ability to become immersed and the wider outcomes related to wellbeing. It will also be established which modality leads to the most pronounced ASMR experience and its associated benefits i.e. whether audio, video or audio-visual triggers are most effective. This study will be conducted online using Qualtrics platform where participants will be presented with binaural and stereo recordings and subsequently asked to rate their mood, their ASMR response, and how immersive they found the stimuli.

Gpower estimation indicates a sample size of 159 participants to conduct a fixed one-way ANOVA to assess modality (audio/audiovisual/visual) with a medium effect size of .25 and power of .80. Accounting for 20% loss of complete data due to attrition, a total of 190 participants will be recruited. Additional regression analysis may also be run. A raffle type incentive will be employed to reward participation, whereby participants will have a chance to win an Amazon voucher of a more substantial value (there will be 4 x £50 and 4 x £25 = £300 total) which will be randomly allocated to them. This research is supported by a NET Fellowship funding.

Data Collection

What data will you collect or create?

Data will originally be generated and stored on the password protected online platform (Qualtrics) and then the files downloaded to a password protected computer where it will be stored on the password protected University Google Drive.

The survey data will be in .xlsx. In addition an SPSS file will be created for data analysis purposes. Participant emails will also be collected so they can be entered into a lottery, these will be stored in a separate .xslx file and deleted once the data collection has been finished and the vouchers have been randomly allocated to participants. Only the anonymous data set will be kept for analysis.

How will the data be collected or created?

This study will be conducted using online surveys, Qualtrics.

Data will also be backed up on the password protected computer and University google Drive (all are password protected). Detailed labelling of variables will be implemented to avoid confusion. SPSS and Excel files will contain full question text for each variable, include both code and labels and it will be ensured that variable names are easily understandable

Documentation and Metadata

What documentation and metadata will accompany the data?

Detailed labelling of variables will be implemented to avoid confusion. Excel file will contain full question text for each variable, include both code and labels and it will be ensured that variable names are easily understandable

Ethics and Legal Compliance

How will you manage any ethical issues?

Participants will be provided with an information sheet prior to participation in the study where the nature and rationale behind the research is clearly outlined and explained. Subsequently they will be asked to give an electronic informed consent. Participants will have to tick a box to show that they agree to take part in the study and that they agree to their data being preserved and shared. If a participant was to indicate that they do not consent to take part in this research the study will be terminated immediately and they will be presented with a Debrief Form. Statements explaining their right to withdraw will be made in the information sheet provided prior to the experiment. Data such as names, date of birth, will not be collected as part of this study.

Submitting an email address to be entered to a raffle is optional. Should participants provide an email address, it will be kept separate from their survey data so they are not identifiable and destroyed once the data collection has been completed. Participants will be informed of this in the information sheet.

No vulnerable participants will take part in this study. Clear inclusion and exclusion criteria are provided on the Information Sheet. To ensure that participants fulfill all these criteria they will be explicitly asked again about them as part of the Demographic Questions at the start of the survey. Those who do not fit the inclusion criteria will be automatically rerouted out of the survey.

Participants will also be provided with a Debrief From, contact details of the researchers and support services (although this study is unlikely to cause any distress).

This study will only commence once it has been approved by the BSU ethics committee.

How will you manage copyright and intellectual property (IP) issues?

The PI will own the IP of the data collected as part of this study.

Storage and Backup

How will the data be stored and backed up during the research?

Data will be stored on the password protected computer and University google Drive (all are password protected). Data will be backed up every time a change is made to the data set, ensuring it is clearly labelled. No confidential information will be collected or stored as part of this study, but participants will be allowed to submit their email address to be added into a raffle. Any email addresses will be stored separately from the data as an additional anonymised file with participant numbers only will be generated which will not contain any identifiable information. This anonymous file will be used for all analysis and publications.
Email data will be deleted immediately after the data collection has been completed and the Amazon vouchers have been randomly allocated to participants
The PI will be responsible for data storage and backup.

How will you manage access and security?

Anonymous data will be stored on the password protected computer and University google Drive (all are password protected). It may also be included with publications and will be deposited in the University's ResearchSpace . The file with the Email addresses will be password protected and accessible only by the PI and Research Assistant (Tom Swart) and it will be deleted as soon as the data collection has been completed and the Amazon vouchers have been randomly allocated to participants.

Selection and Preservation

Which data should be retained, shared and/or preserved?

The final (cleaned, coded, labelled) data will be preserved for 10 years.
Email data will be deleted as soon as the data collection has been completed and the Amazon vouchers have been randomly allocated to participants.

What is the long-term preservation plan for the dataset?

It will be stored on Figshare or the BSU REsearch Space and password protected computer.

Data Sharing

How will the data be shared?

On Figshare or ResearchSpace and may also be submitted to the journals as part of the publication process.

Are any restrictions on data sharing required?

No, as the data will be anonymous.
Only the PI and the RA will have access to email data.

Responsibilities and Resources

Who will be responsible for data management?

The Principal Investigator for the project is responsible for the long term management of data. RA will also be responsible for the data management until his contract expires (28th February 2022).

What resources will you require to deliver your plan?

Participant payments and RA costs are covered by the NET fellowship funding.

Signoff

I confirm that I have read the Bath Spa University Research Data Policy and any relevant policy for my research funder.

Agnieszka Janik McErlean 11.11.2021